

Bearing Installation (Except 1973-1974 ATC70)

NOTE

Install the Honda bearings with their markings facing toward the outside of the housing.

1. On non-sealed bearings, pack the bearings with a good quality bearing grease. Work the grease in between the balls thoroughly. Turn the bearing by hand a couple of times to make sure the grease is distributed evenly inside the bearing.
2. Coat the inside of the bearing holder and the center collar with multipurpose grease.

CAUTION

During installation, tap the bearings squarely into place and tap on the outer race only. Use a socket that matches the outer race diameter. Do not tap on the inner race or the bearing may be damaged. Be sure that the bearings are completely seated.

3. Install the right-hand bearing.
4. Install the center collar and the left-hand bearing.
5. Apply a light coat of multipurpose grease to the grease seals (and O-ring seals, if so equipped) and install one on each side of the bearing holder.
6. Install the bearing holder and the rear axle as described in this chapter.

TIRES AND WHEELS

The ATC is equipped with tubeless, low pressure tires designed specifically for off-road use only. Rapid tire wear will occur if the ATC is ridden on paved surfaces. Due to their low pressure

requirements, they should be inflated only with a hand-operated air pump instead of using an air compressor or the air available at service stations.

CAUTION

Do not overinflate the stock tires as they will be permanently distorted and damaged. If overinflated they will bulge out similar to an inner tube that is not within the constraints of a tire and will not return to their original contour.

NOTE

Additional inflation pressure in the stock tires will not improve the ride or the handling characteristics of the ATC. For improved handling, aftermarket tires will have to be installed.

To guard against punctures from small objects, install a commercially available liquid tire sealer into all 3 tires through the valve stem. It's a good idea to carry a cold patch tire repair kit and hand held pump in the tow vehicle. It's also a good idea to carry the tire pump, some chewing gum and a small strip of cater).

Removing the tire from the special rims is different than on a motorcycle or automobile wheel. Due to the different types of rims used on the various models, tire removal procedures are separated into different groups.

CAUTION

Do not use conventional motorcycle tire irons for tire removal as the tire sealing bead will be damaged when forced away from the rim flange.

Tire Changing (1970-1974 ATC90)

The front and rear tires on these models are of the one-piece type (similar to an inner tube) and have no rim. Refer to Figure 121 for the front wheel and Figure 122 for the rear wheel. After the tire is removed from the axle all you have is a large tire with a very small hole in the center where the wheel boss is attached.

Tire Changing (All ATC70, 1975-1978 ATC90, 1979-1983 ATC110)

Refer to Figure 123 for this procedure.

To make tire changing easier, special tools are available. The one from Honda is the Tire Disassembly Tool, Honda part No. 07772-0010000. See Figure 124. A variety of aftermarket tire removal tools are available at most dealers, mail order houses or motorcycle

supply stores. The one shown in this procedure is only an example from one manufacturer. Most tools fit different size rims, but make sure you purchase the correct one for your specific wheel size.

NOTE

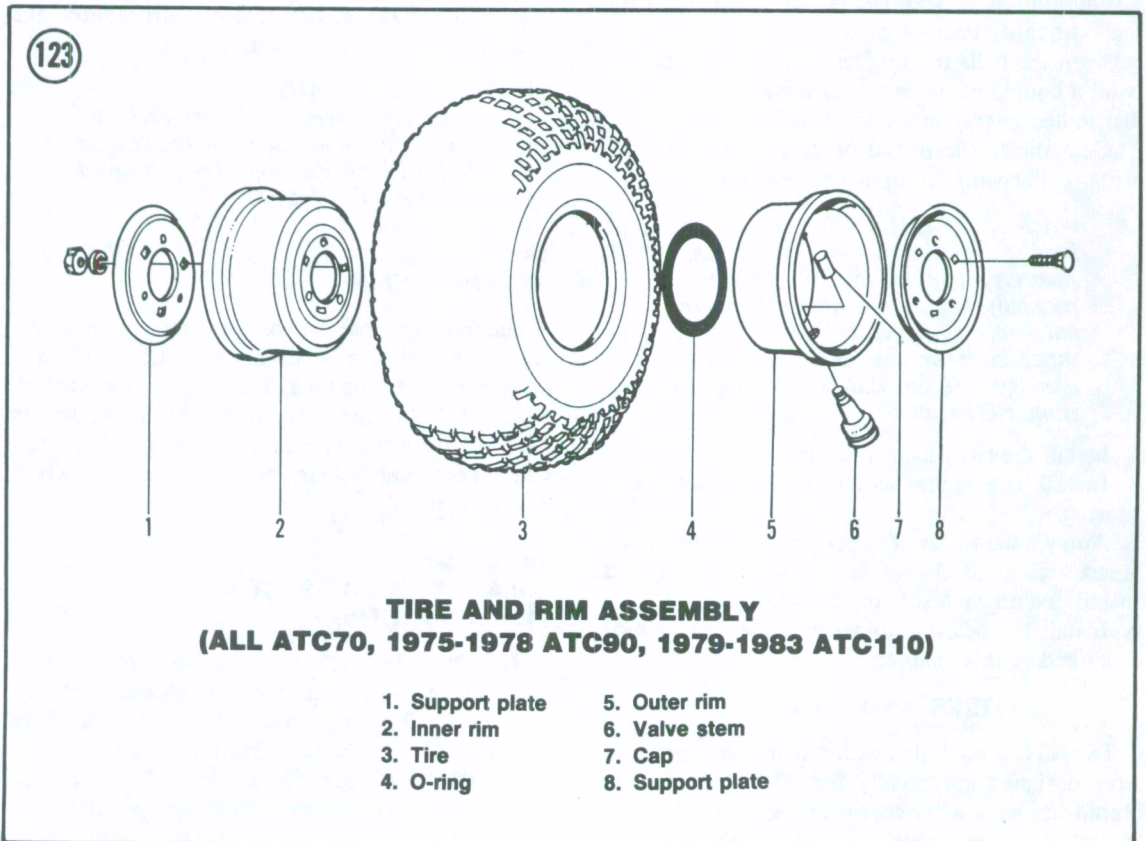
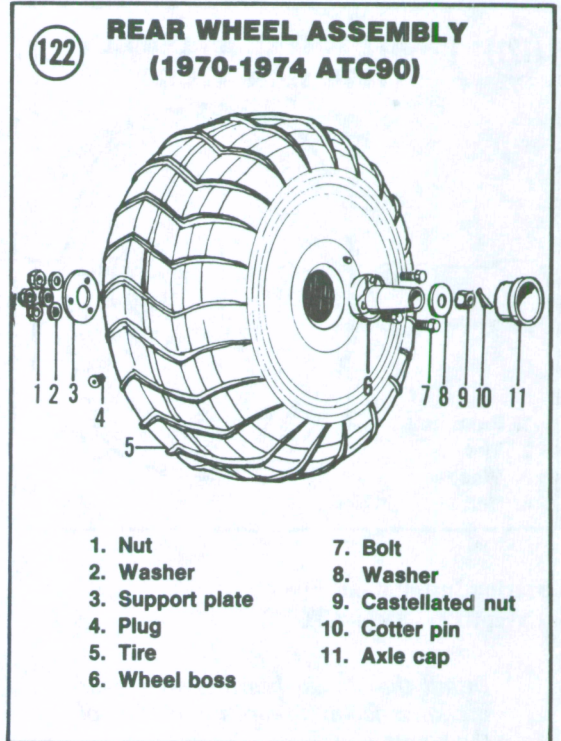
On the front wheel it is necessary to remove the front hub from the wheel. Remove the bolts and nuts securing the hub to the wheel and remove the hub.

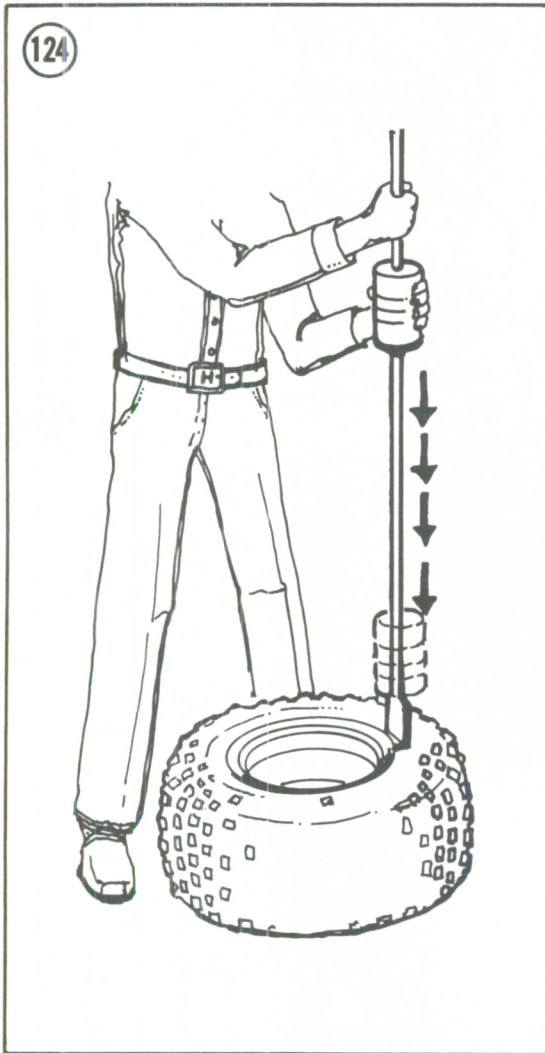
1. Remove the valve stem cap and core and deflate the tire. Do not reinstall the core at this time.
2. Lubricate the tire bead and rim flanges with water and liquid dish detergent, Armor All or any rubber lubricant.

CAUTION

If you are running aftermarket aluminum wheels, special care must be taken when changing tires to avoid scratches and gouges to the outer rim surface.

3. After the air pressure is released from the tire, use one of the previously mentioned tire removal





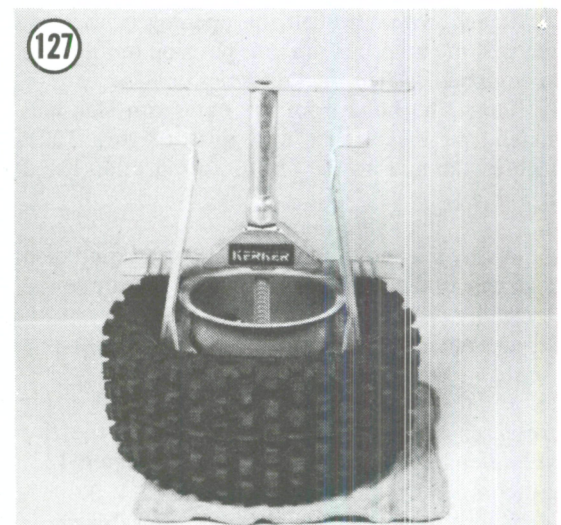
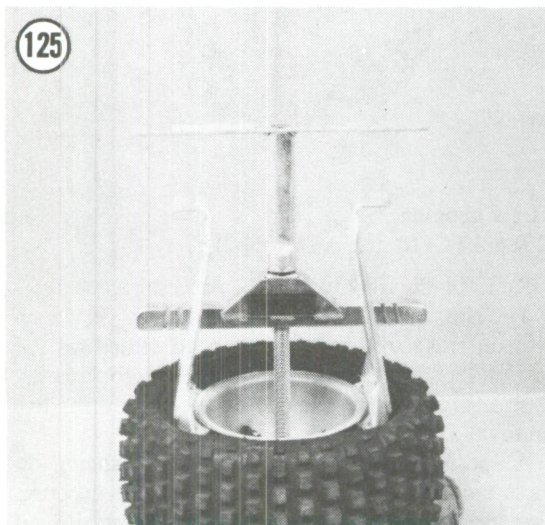
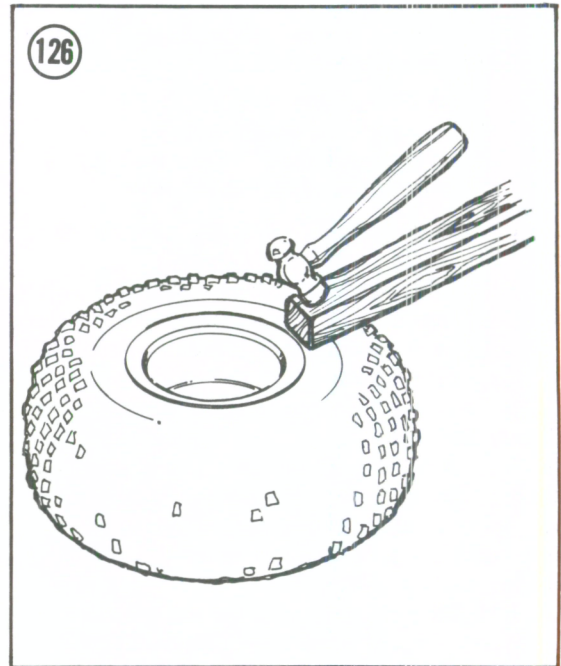
tools (Figure 125) or stand on the tire with the heel of your shoe, close to the wheel rim. Exert as much downward pressure as possible to break the tire bead loose. If you are unable to break it loose this way, place a wooden 2×4 next to the rim and hit the 2×4 with a hammer (Figure 126).

4. Continue to work your way around the tire until it is completely loose on one side (Figure 127).

Turn the tire over and repeat for the other side.

5. Remove the rim bolts, lockwashers and nuts.

6. Remove the rim, the large O-ring and, on models so equipped, the rim plate(s).



7. Inspect the rim sealing surface on both rims. If the rim has been severely hit it will probably cause an air leak. Either repair or replace any damaged rim. On stock rims, remove any rust on the rim sealing surface area and repaint if necessary.
8. Inspect the tire for cuts, tears, abrasions or any other defects.
9. Wipe the tire beads and rims free from any lubricating agent used in Step 2.

NOTE

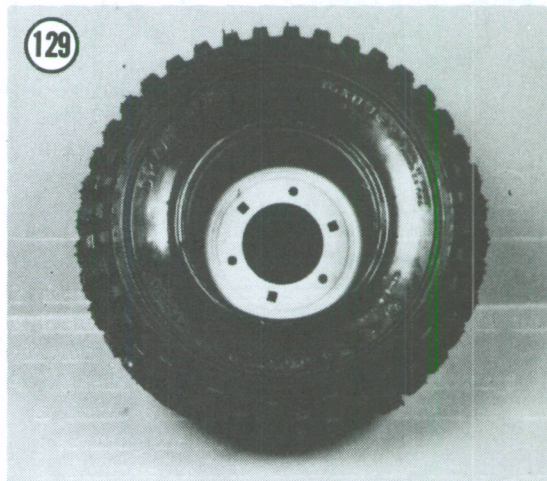
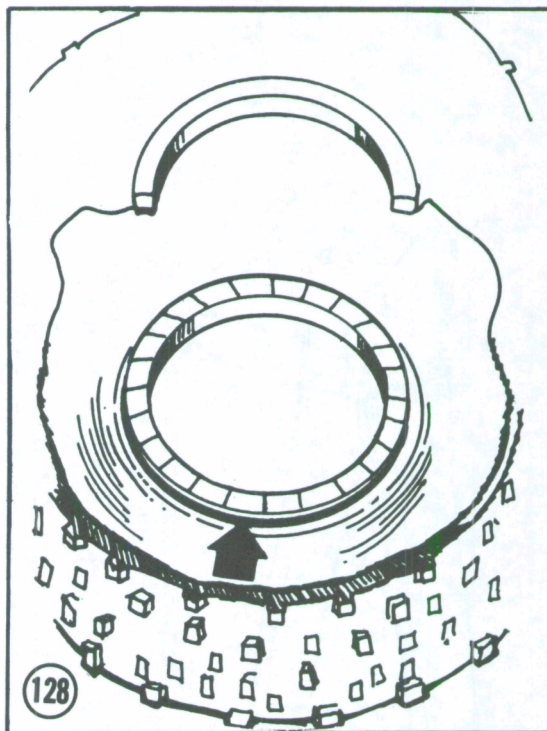
Make sure that the beads are up on the bead seats and are uniformly seated all around (Figure 128).

10. Apply clean water to the rim flanges, tire rim beads and the outer rim.

NOTE

Use only clean water and make sure the rim flange is clean. Wipe with a lint-free cloth prior to wetting down.

11. On ATC90 and ATC110 models, lay the outer rim flange on the floor upside down.
12. Place the outer rim (the one with the valve stem) on the floor with the outside rim facing down. Place it directly over the outer rim flange already on the floor.
13. Set the tire into position on the outer rim (Figure 129).
14. Inspect the large O-ring seal. If it is starting to harden or deteriorate, replace with a new one.
15. Apply a light coat of grease to the large O-ring seal and place it in the groove in the outer rim (Figure 130).
16. Install the inner rim into the tire and onto the outer rim. Align the bolt holes (Figure 131).
17. On ATC90 and ATC110 models, install the inner rim plate.
18. Reach down through the opening in the rim and pull the outer rim up into position (on models so equipped). Align the bolt holes.
19. Insert the bolts from the outer rim side and install the lockwasher and nuts (Figure 132). Tighten the nuts to the torque specification listed in Table 1.
20. Install the valve stem core.
21. Apply tire mounting lubricant or a liquid dish detergent to the tire bead and inflate the tire to the recommended tire pressure.
22. Deflate the tire and let it sit for about one hour.
23. Inflate the tire to the recommended air pressure; refer to Table 3. Also check the tire circumference with a tape measure (Figure 133) and compare to dimension given in Table 3.
24. Check for air leaks and install the valve cap.

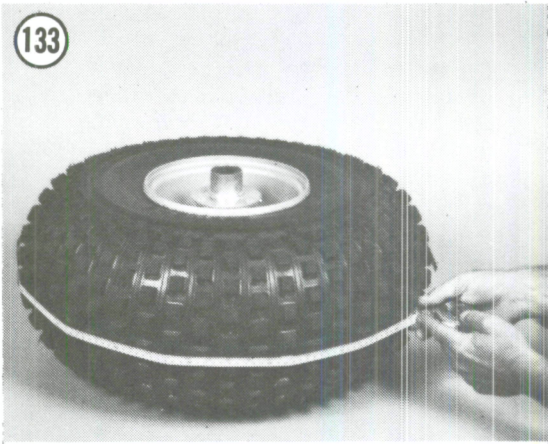
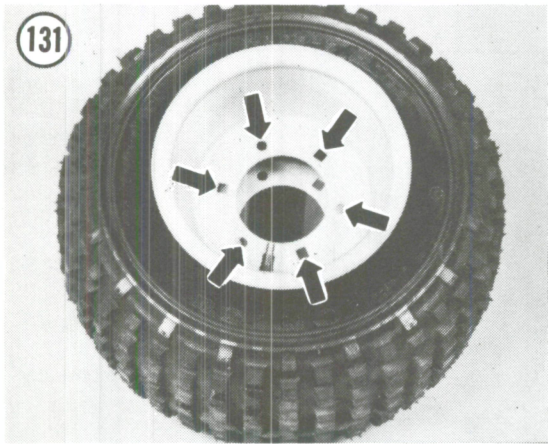
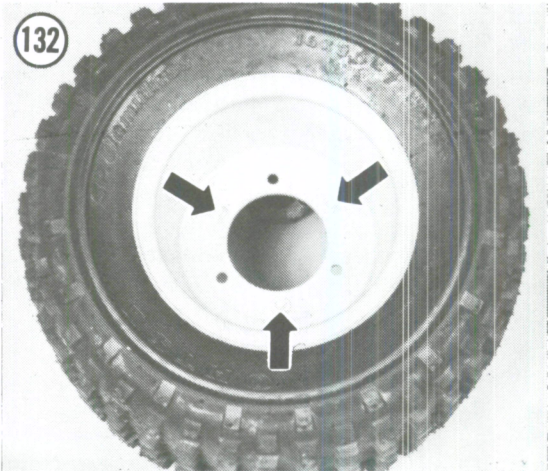
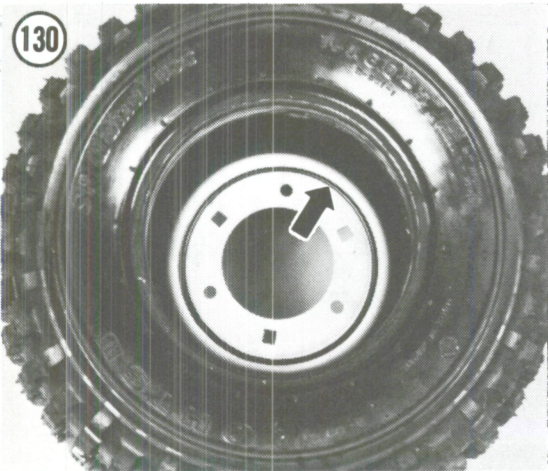


Tire Changing (1984 ATC110 and ATC125M)

Refer to Figure 134 for this procedure.

The rims used on these models have a very deep built-in ridge to keep the tire bead seated on the rim under severe riding conditions. Unfortunately it also tends to keep the tire on the rim during tire removal as well.

A special tool is *required* for tire changing on these models and is shown in use in this procedure. The special tool from Honda is the Universal Bead



WHEEL ASSEMBLY
(1984 ATC110, ATC125M)

1. Nut	6. O-ring
2. Washer	7. Tire
3. Hub—rear wheel only	8. Outer rim
4. Inner rim plate	9. Valve rim
Outer rim plate	10. Collar
5. Inner rim	11. Bolt

Breaker, Honda part No. GN-AH-958-BB1. The use of this specific tool is necessary as it exerts all of the applied pressure to a very small section of the tire bead at a time. Most other aftermarket bead breakers spread out the applied pressure over a larger section of the tire bead and therefore are unable to break the bead loose from this type of rim.

If you are going to purchase this bead breaker and also have other ATCs with different rim sizes, the blade length (Figure 135) is important. The following blades are recommended:

- a. Short blade for 7 in. and 8 in. rims.
- b. Long blade for 9 in. and 11 in. rims.

CAUTION

The use of the improper size blade may damage the rim, tire or the blade.

NOTE

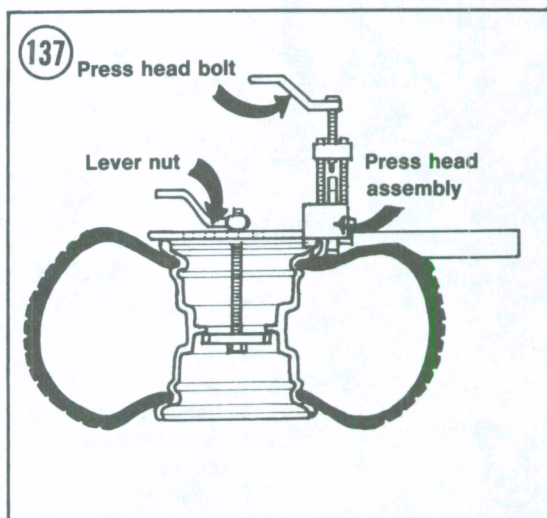
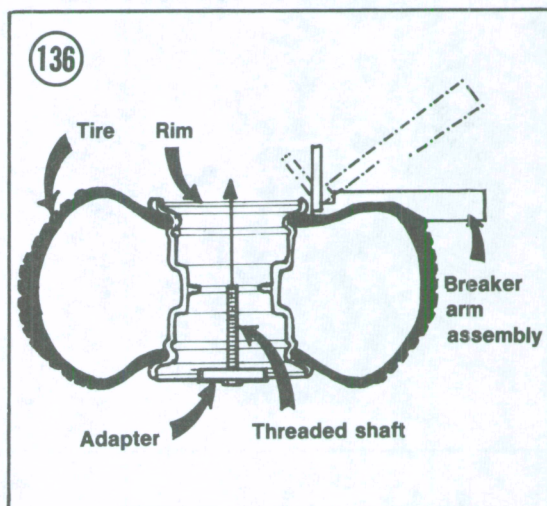
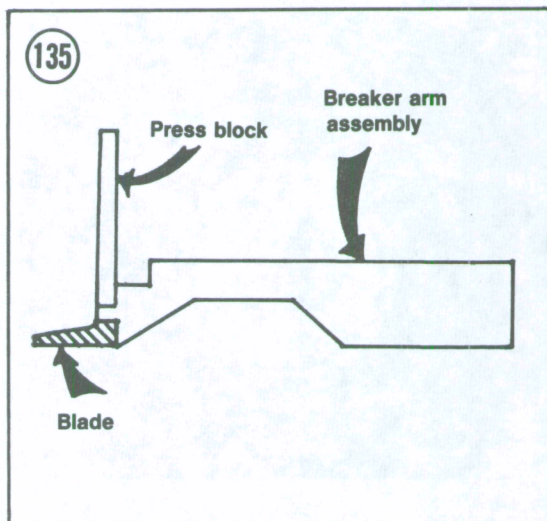
On the front wheel it is necessary to remove the front hub from the wheel. Remove the bolts and nuts securing the hub to the wheel and remove the hub.

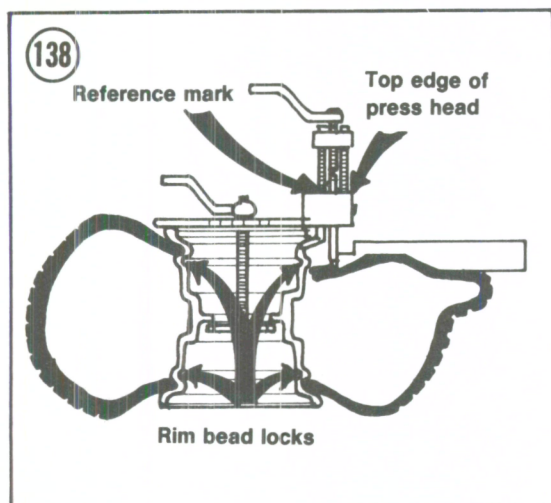
1. Remove the valve stem cap and core and deflate the tire. Do not reinstall the core at this time.
2. Install the correct size adapter onto the threaded shaft and place the wheel over this assembly (Figure 136).
3. Lubricate the tire bead and rim flanges with a liquid dish detergent, Armor All or any rubber lubricant. Press the tire sidewall/bead down to allow the liquid to run into and around the bead area. Also apply lubricant to the area where the bead breaker arm will come in contact with the tire sidewall.
4. Hold the breaker arm at about 45° to the tire and insert the blade between the tire bead and the rim.
5. Push the breaker arm inward and downward until it is horizontal with the press block against the rim outer surface (Figure 136).

NOTE

*To completely seat the breaker arm, hold it horizontal and tap the end of the breaker arm with soft-faced mallet to position the press block **completely** against the rim outer surface. This is necessary for the tool to work properly.*

6. With the breaker arm positioned correctly, place the breaker press head assembly over the press block of the breaker arm. Make sure the press head bolt is backed out all the way (Figure 137).





7. Position the nylon buttons on the press head against the inside edge of the rim.

8. Pull the threaded shaft and adapter assembly up and insert it into the breaker press head assembly. Install the bolts through the rim holes and the adapter to correctly position the adapter assembly to the center of the rim.

9. Slowly tighten the lever nut until both ends of the breaker press head assembly are in firm contact with the rim.

10. Slowly tighten the press head bolt until the reference mark on the press block is aligned with the top edge of the press head (Figure 138). At this point the tire bead *should* break away from the rim.

11. Using your hands, press down on the tire on either side of the breaker arm assembly and try to break the rest of the bead free from the rim.

12. If the rest of the tire bead cannot be broken loose, loosen the press head bolt and lever nut. Rotate the press head assembly about 1/8 to 1/4 of the circumference of the rim.

13. Repeat Steps 4-11 until the entire bead is broken loose from the rim.

14. Remove the tool assembly from the rim assembly. Turn the wheel over and repeat Steps 2-13 for the other rim flange.

15. Remove the rim bolts, lockwashers and nuts.

16. Remove the rim, the large O-ring and the rim plates.

17. Inspect the rim sealing surface on both rims. If the rim has been severely hit it will probably cause an air leak. Either repair or replace any damaged rim. On stock rims, remove any rust on the rim sealing surface area and repaint if necessary.

18. Inspect the tire for cuts, tears, abrasions or any other defects.

19. Wipe the tire beads and rims free from any lubricating agent used in Step 3.

20. Apply clean water to the rim flanges, tire rim beads and onto the outer rim.

NOTE

Use only clean water and make sure the rim flange is clean. Wipe with a lint-free cloth prior to wetting down.

21. Lay the outer rim flange on the floor upside down.

22. Place the outer rim (the one with the valve stem) on the floor with the outside rim facing down. Place it directly over the outer rim flange already on the floor.

23. Set the tire into position on the outer rim (Figure 129).

24. Inspect the large O-ring seal. If it is starting to harden or deteriorate, replace with a new one.

25. Apply a light coat of grease to the large O-ring seal and place it in the groove in the outer rim (Figure 130).

26. Install the inner rim into the tire and onto the outer rim. Align the bolt holes (Figure 131) and install the inner rim plate.

27. Reach down through the opening in the rim and pull the outer rim up into position. Align the bolt holes.

28. Insert the bolts from the outer rim side and install the lockwasher and nuts (Figure 132). Tighten the nuts to the torque specification listed in Table 1.

29. Install the valve stem core.

30. Apply tire mounting lubricant or a liquid dish detergent to the tire bead and inflate the tire to the recommended tire pressure.

31. Deflate the tire and let it sit for about one hour.

32. Inflate the tire to the recommended air pressure; refer to Table 3. Also check the tire circumference with a tape measure (Figure 133) and compare to dimension given in Table 3.

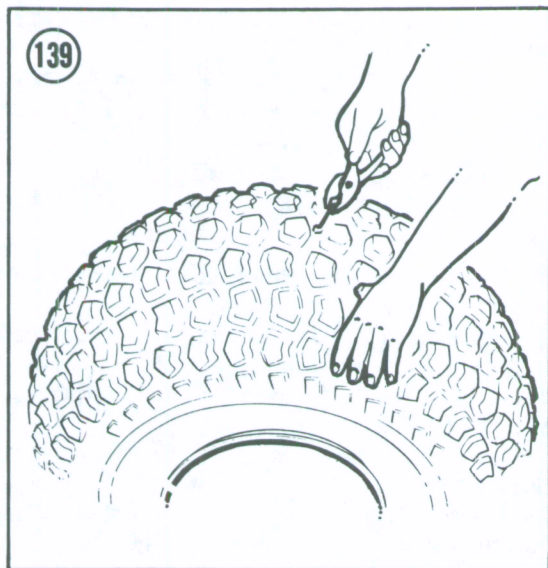
33. Check for air leaks and install the valve cap.

Cold Patch Repair

This is the method that Honda recommends for patching a tire. The rubber plug type of repair is recommended only for an emergency repair or until the tire can be patched correctly with the cold patch method.

NOTE

If you get caught out in the boonies without any means of patching a tire, you can try the following method. Chew



some gum (preferably the soft bubble-gum type) and then knead it into a small strip of cloth. Stuff this gum/cloth into the hole in the tire, pump up the tire and it just may get you back to camp.

1. Remove the tire as described in this chapter.
2. Prior to removing the object that punctured the tire, mark the location of the puncture with chalk or crayon on the outside of the tire. Remove the object (Figure 139).

3A. On 1970-1974 ATC90 models, on the *outside* of the tire, roughen the area around the hole slightly larger than the patch. Use the cap from the tire repair kit or pocket knife. Do not scrape too vigorously or you may cause additional damage.

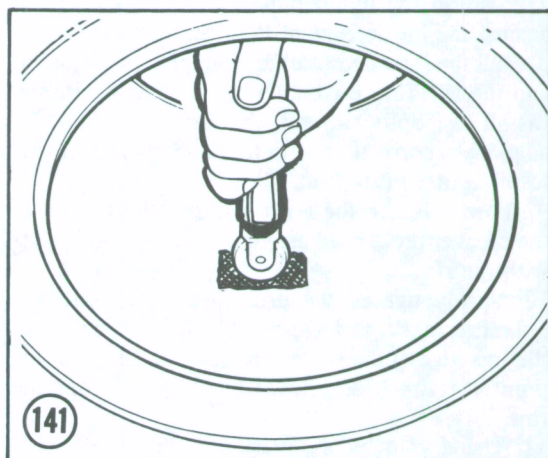
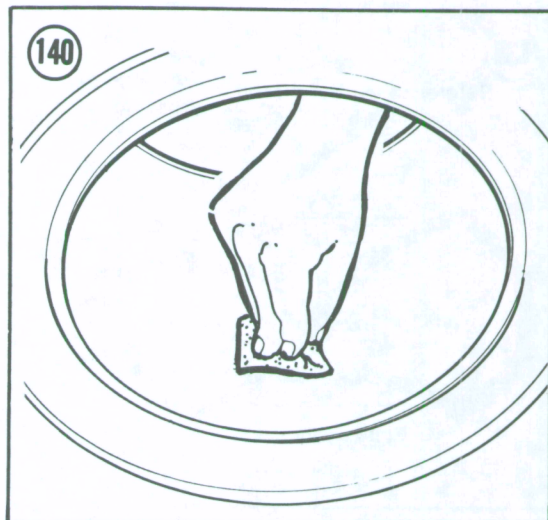
3B. On all other models, on the *inside* of the tire, roughen the area around the hole slightly larger than the patch (Figure 140). Use the cap from the tire repair kit or pocket knife. Do not scrape too vigorously or you may cause additional damage.

4. Clean the area with a non-flamable solvent. Do not use an oil base solvent as it will leave a residue rendering the patch useless.

NOTE

In the following steps, the patch is applied to the outside surface of the tire on 1970-1974 ATC90 models, not the inside as on all other models.

5. Apply a small amount of special cement to the puncture and spread it with your finger.
6. Allow the cement to dry until tacky—usually 30 seconds or so is sufficient.
7. Remove the backing from the patch.



CAUTION

Do not touch the newly exposed rubber with your fingers or the patch will not stick firmly.

8. Center the patch over the hole. Hold the patch firmly in place for about 30 seconds to allow the cement to dry. If you have a roller use it to help press the patch into place (Figure 141).
9. Dust the area with talcum powder.

FRAME

The frame does not require routine maintenance. However, it should be inspected immediately after any accident or spill.

Component Removal/Installation

1. Remove the seat, fenders and fuel tank.
2. Remove the engine as described in Chapter Four.

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